

This article was downloaded by: [Macquarie University]

On: 26 January 2015, At: 19:47

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954
Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH,
UK



Australasian Journal of Philosophy

Publication details, including instructions for authors
and subscription information:

<http://www.tandfonline.com/loi/rajp20>

Genetics and Philosophy by Paul Griffiths and Karola Stotz

Mario Graziano^a

^a University of Messina

Published online: 06 Oct 2014.



CrossMark

[Click for updates](#)

To cite this article: Mario Graziano (2014): Genetics and Philosophy by
Paul Griffiths and Karola Stotz, *Australasian Journal of Philosophy*, DOI:
[10.1080/00048402.2014.961944](https://doi.org/10.1080/00048402.2014.961944)

To link to this article: <http://dx.doi.org/10.1080/00048402.2014.961944>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

BOOK NOTE

Griffiths, Paul, and Karola Stotz, *Genetics and Philosophy: An Introduction*, Cambridge: Cambridge University Press, 2013, pp. 270, £50 (hardback).

In this book, Paul Griffiths and Karola Stotz deal with the classic issues addressed by the philosophy of biology: from the topic of reductionism to the metaphysical assumptions implied by the laws of nature or the issues regarding the use of certain biological organisms as models, from the analysis of the theories of reference to the field of developmental biology. The book specifically addresses the particular type of information reductionism employed in some fields of genetics and molecular biology.

The book is undoubtedly aimed at exploring the philosophy of science, despite the fact that many of the issues relating to the philosophy of physics and mathematics—main reference points in the current philosophical debate—are explicitly split off from the biological issues and are often consciously overlooked, as in the case of the genetics of populations.

The arguments and the structure of the book's nine chapters rely on the idea that, in the current philosophy of biology, there is a remarkable tension between a reductionist point of view and an approach that could be defined as 'pluralist'. According to the reductionist approach, the activities of genes play a primary role at both an ontological and an explanatory level: not only are genes seen as the fundamental units for selection and reproduction; they represent also the key factors in explaining the form and development of living creatures. On the other hand, the pluralist approach emphasizes the equal influence played on an explanatory and ontological level by factors other than genes, such as other organisms and the surrounding environment.

The two authors provide a thorough and comprehensive review of the concept of the gene, showing how over the years this concept has been linked to a series of causing conditions and—with the development of molecular biology—to a series of specific structures. The book discusses these topics in an exemplary and comprehensive way, especially when the authors address theories particularly close to their hearts, such as the anti-reductionist, pluralist, and structuralist theories (cf. chapter 3, 'The material gene').

Going beyond the book's core issue, the authors provide a good number of in-depth analyses on a wide range of topics, presenting them in a way that requires no specialist philosophical or biological knowledge. For this reason, the book is suited also for people without specialist knowledge, even if sometimes a reader might usefully refer to a biology or chemistry dictionary in order to understand the full meaning of some technical vocabulary. Finally, the book's long list of bibliographic references allows readers to further deepen the information provided in every single chapter.

Mario Graziano
University of Messina
© 2014 Mario Graziano